CLAIM

WHAT IS CLAIMED IS:

1. An asynchronous transfer mode (ATM) digital subscriber line (DSL) head end network, comprising:

customer premise equipment (CPE), which delivers DSL service to at least one customer;

a voicemail server disposed remotely from the CPE for storing voice messages left for the at least one customer; and

a service controller for managing system traffic coupled to the voicemail server such that when a voicemail message is recorded on the voicemail server an ATM signaling channel is employed to notify the customer premise equipment that the voicemail is awaiting to be retrieved.

2. The head end network as recited in claim 1, wherein the at least one customer includes a plurality of customers and the CPE includes a plurality of CPEs, and the head end network further comprises an ATM switch for routing the ATM signaling channel to an appropriate customer based on a telephone number associated with a voice mail box.

3. The head end network as recited in claim 2, further comprising a multiplexer for addressing the ATM signaling channel to the appropriate customer.

4. The head end network as recited in claim 1, wherein the ATM signaling channel transfers an ATM cell, which includes a flag for indicating that the voicemail message waits for retrieval.

5. The head end network as recited in claim 1, wherein the ATM signaling channel transfers an ATM cell, which includes information relating to the voicemail message.

6. The head end network as recited in claim 1, wherein the service controller is located at a central station.

7. The head end network as recited in claim 1, further comprising customer access equipment coupled to the CPE, the customer access equipment having an indicator which is responsive to CPE notification that the voicemail is awaiting to be retrieved.

8. The head end network as recited in claim 7, wherein the customer access equipment includes one of a telephone, a set top box and a display.

9. A method for providing voicemail to customers from an asynchronous transfer mode (ATM) digital subscriber line (DSL) head end network, comprising the steps of:

receiving a voicemail message in a voice mailbox;

signaling a service controller to notify the service controller that a voicemail message has been received; and

sending an indicator signal from the service controller over an ATM signaling channel to a customer premise equipment (CPE) device to notify the CPE device that the voicemail message is waiting to be retrieved.

10. The method as recited in claim 9, further comprising the step of routing the ATM signaling channel to an appropriate customer based on a telephone number associated with a voice mail box.

11. The method as recited in claim 9, further comprising the step of transferring an ATM cell, which includes a flag for indicating that the voicemail message waits for retrieval by employing the ATM signaling channel

12. The method as recited in claim 9, further comprising the step of transferring an ATM cell on the ATM signaling channel, which includes information relating to the voicemail message.

13. The method as recited in claim 9, further comprising the step of indicating that the voicemail is waiting to be retrieved on customer access equipment coupled to the CPE.

14. A method for providing voicemail to customers from an asynchronous transfer mode (ATM) digital subscriber line (DSL) head end network, comprising the steps of:

providing an asynchronous transfer mode (ATM) digital subscriber line (DSL) head end network including customer premise equipment (CPE) which delivers DSL service to at least one customer, a voicemail server disposed remotely from the CPE for storing voice messages left for the at least one customer, and a service controller for managing system traffic coupled to the voicemail server such that when a voicemail message is recorded on the voicemail server an ATM signaling channel is employed to notify the customer premise equipment that the voicemail is awaiting to be retrieved;

receiving a voicemail message in a voice mailbox of the voicemail server;

signaling the service controller to notify the service controller that a voicemail message has been received;

sending an indicator signal from the service controller over the ATM signaling channel to a customer premise equipment (CPE) device to notify the CPE device that the voicemail message is waiting to be retrieved; and

retrieving the voicemail from the voicemail server.